

AMENDMENTS TO THE CLAIMS

Please **AMEND** the claims as shown below. This listing of claims replaces all prior versions of claims in the application.

1-13. (cancelled)

14. (currently amended) An optical device for an optical pickup apparatus for recording or reproducing information with respect to a first information recording medium having a plurality of recording layers and a second information recording medium having a single recording layer, the optical device comprising:

a substrate;

a hologram element to diffract

a first main beam of a first wavelength that is reflected by a first one of the plurality of recording layers that is a recording or reproducing object in the plurality of recording layers of the first information recording medium, and

first and second sub-beams of the first wavelength that are reflected by the first one of the plurality of recording layers of the first information recording medium so as to reach different positions, respectively, during recording or reproducing information to or from the first information recording medium, and

a second main beam of a second wavelength that is reflected by the single recording layer of the second information recording medium, and

third and fourth sub-beams of the second wavelength that are reflected by the single recording layer of the second information recording medium so as to reach different positions, respectively, during recording or reproducing information to or from the second information recording medium;

a plurality of first light receiving regions arranged on the substrate to receive the first and second diffracted beams that are diffracted from the first and second sub-beams respectively by the hologram element;

a plurality of second light receiving regions arranged on the substrate to receive third and fourth diffracted beams that are diffracted from the third and fourth sub-beams respectively by the hologram element; and

an operation unit, wherein:

the wavelength of an incident beam to the hologram element is one wavelength of either the first or second wavelengths,

the operation unit performs a subtraction operation between a signal that is photoelectrically converted from the light received by the plurality of first light receiving regions that receives the first and second diffracted beams and unnecessary light reflected by one or more of the plurality of first information medium recording layers other than the recording layer that is a recording or reproducing object and a signal that is photoelectrically converted from the light received by the plurality of second light receiving regions that receive the unnecessary light scattering over the substrate including the plurality of first and second light receiving regions reflected by one or more of the plurality of first information medium recording layers other than the recording layer that is a recording or reproducing object,

the operation unit removes a component representative of the unnecessary light from the signal that is photoelectrically converted from the light received by the plurality of first light receiving regions, and

the operation unit outputs ~~the a~~ detection signal representative of the first light wavelength, when the one wavelength is the first wavelength, and wherein the operation unit:

performs a subtraction operation between the signal that is photoelectrically converted from the light received by the plurality of second light receiving regions that receive the third and fourth diffracted beams and unnecessary light reflected by the ~~one or more of the plurality~~ single recording layer of first the second information ~~recording medium recording layers other than the~~

~~recording layer that is a recording or reproducing object and the signal that is photoelectrically converted from the light received by the plurality first light receiving regions that receive unnecessary light scattering over the substrate including the plurality of first and second light receiving regions reflected by the one or more of the plurality single recording layer of first the second information recording medium recording layers other than the recording layer that is the recording or reproducing object,~~

removes a component representative of the unnecessary light from the signal that is photoelectrically converted from the light received by the plurality of second light receiving regions, and

outputs a detection signal representative of the second light wavelength, when the one wavelength is the second wavelength.

15. (currently amended) The optical device as set forth in claim 14, wherein;
at least one of the plurality of first light receiving regions is adjacent to at least one of the plurality of second light receiving regions; and
the at least one adjacent first light receiving region has a light receiving area nearly equal to the light receiving area of the at least one adjacent second light receiving region.

16. (cancelled).

17. (previously presented) The optical device as set forth in claim 14, comprising:
determination means for determining whether the wavelength of the incident beam is the first wavelength or the second wavelength, wherein
the operation unit outputs the detection signal representative of the wavelength determined by the determination means.

18. (cancelled).

19. (cancelled).

20. (currently amended) The optical device as set forth in claim 14, wherein the hologram element is divided into first and second regions having different diffraction axes;

the plurality of first light receiving regions further comprises a third light receiving region to receive a diffracted beam from the first region of the hologram element and a fourth light receiving region to receive a diffracted beam from the second region of the hologram element; and

the plurality of second light receiving regions further comprises a fifth light receiving region to receive a diffracted beam from the first region of the hologram element and a sixth light receiving region to receive a diffracted beam from the second region of the hologram element.

21. (previously presented) The optical device as set forth in claim 14, wherein the first wavelength is in a 650-nm band and the second wavelength is in a 780-nm band.

22. (previously presented) The optical device as set forth in claim 14, wherein at least one of a first light source for emitting light of the first wavelength and a second light source for emitting light of the second wavelength is arranged on the substrate.

23. (previously presented) The optical device as set forth in claim 21, comprising:
a first light source for emitting light of the first wavelength; and
a second light source for emitting light of the second wavelength.

24. (previously presented) The optical pickup apparatus as set forth in claim 23, comprising:

a first diffraction grating to divide light of the first wavelength from the first light source into a main beam and two sub-beams; and

a second diffraction grating arranged in the optical device, to divide light of the second wavelength from the second light source into a main beam and two sub-beams.

25. (previously presented) The optical pickup apparatus of claim 23, comprising:
a first diffraction grating arranged in the optical device, to divide light of the first wavelength from the first light source into a main beam and two sub-beams; and
a second diffraction grating to divide light of the second wavelength from the second light source into a main beam and two sub-beams.